MATLAB v5.2 Fix

DSPower-HwLib software v2.1 includes a fix for external library problems we found with MATLAB v5.2 when The MathWorks changed compilers (Microsoft MSVC). It took a few weeks, but this bug was quashed!

Distributor List

Australia	Total Turnkey Solutions
China	CMCC
France	ATRAITS, AIXLIFE
Greece	AIXLIFE
India	Vi Microsystems Pvt Ltd
Italy	Pellero Comm. R&D
Japan	Tateno Dennou
Korea	I.D.S. System Corp
Malaysia	Edex Tech. Sdn Bhd
Netherlands	Antratek Electronics
South Africa	Peralex
Taiwan	Exartech International
United Kingdom	Trionyx DSP Systems

More Information
www.signalogic.com/distrib.htm

SIGNALOGIC®
9617 Wendell @ Skillman
Dallas, Texas 75243

Supported Hardware Mfg. List

Analog Devices
AT&T Microelectronics
Ariel
Atlanta Signal Processors
BittWare
CAC
Data Translation
DSP Research
Domain Technologies
Innovative Integration
Intelligent Instrumentation
Loughborough Sound Images
Lucent
Motorola
Peralex
National Instruments
Signalogic
Sonitech
Spectrum Signal Processing
Techron
Texas Instruments
Turtle Beach Systems

More Information
www.signalogic.com/hwlist.htm

How To Reach Us

Tech Sales	1-800-DSPower or dspinfo@signalogic.com
Tel	214-343-0069
Fax	214-343-0163
Tech Support	dsphelp@signalogic.com
website	www.signalogic.com
FTP site	ftp.signalogic.com
Address	Signalogic, Inc 9617 Wendell @ Skillman Dallas, Texas 75243
How To Order	www.signalogic.com
Credit Cards	/credit.htm
North America	/order_am.htm
International	/order_in.htm
Universities	/order_un.htm

Trademarks etc.

Hypersignal is a registered trademark of Hyperception.
Signalogic and DSPower are registered trademarks of Signalogic, Inc.
MATLAB is a registered trademark of The Math Works
LabView is a registered trademark of National Instruments.
Windows 95 is a registered trademark of Microsoft, Inc.

SIGNews is a publication of Signalogic, Inc.
Copyright © 1998 Signalogic, Inc. All Rights Reserved

FALL 1998 SIGNEWS Copyright © Signalogic, 1998

SIGNews

SIGNALOGIC®

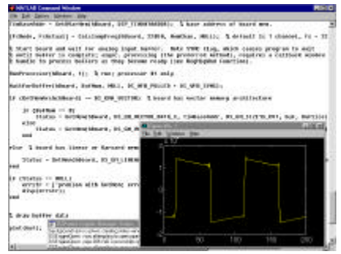
Inside

MATLAB® Interface
Real-Time Code Generator
Visual IDE for DSP
LabView® Interface
C6x Support
All-Purpose Audio / Acoustic Board
EVM563xx Interfaces
SigC44-PC/104 Board
SigBook: Portable DSP/Data Acquisition
Low-Cost C3x Board
NT Drivers
New DSPower® Software Releases
ADC64 and M44 Board Drivers
SHARC Board Drivers
University Packages
SigXXX PCI Boards
MATLAB 5.2 Fix
Updated Distributor List

New SIGNews

Welcome to the new format of SIGNews. By providing an at-a-glance, concise index into information available on Signalogic's website, the new SIGNews is designed for today's increased use of online information resources.

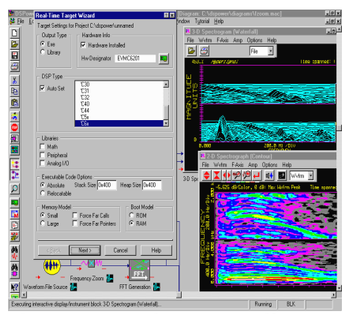
MATLAB Interface



DSPower-HwLib software provides direct access from the MATLAB workspace to more than 80 types of off-the-shelf DSP/data acquisition hardware. DSPower-HwLib augments the popular MATLAB technical computing software package with DSP and data acquisition hardware functions. MATLAB users now have three (3) major capabilities not possible before: bring real-world data directly into their simulations, accelerate or move simulation segments into real-time, and use MATLAB as a user-interface or GUI for hardware-based instrumentation and measurement functions.

More Information
www.signalogic.com/matlabpr.htm

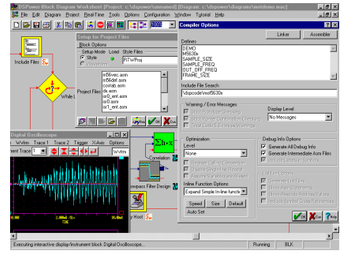
Real-Time Code Generator



The DSPower software now offers an automated Real-Time Code Generator (RTCG) option which can be used to generate real-time executable code for several DSP devices, including Analog Devices, Motorola and Texas Instruments. Both signal flow diagrams and C source code files can be combined in DSPower projects. When generating code, the RTCG performs a dependency check on all blocks, C/asm files, and other files in the project. The RTCG then builds linker command and make files, and automatically controls DSP vendor tools (C compiler, linker, and assembler) in the background. The result is an executable COFF file which can be downloaded and run on supported DSP board, all from within the DSPower environment.

More Information
www.signalogic.com/dspdev/rtcg.htm

Visual IDE for DSP

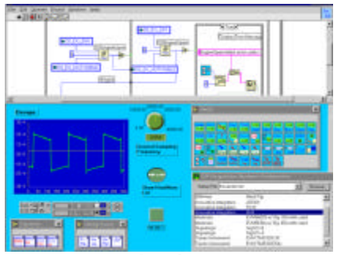


The DSPower-Block Diagram software offers a visual IDE option which "wraps around" Analog Devices, Motorola, and Texas Instruments DSP tools, including C compiler, linker, and assembler. All command-line settings for tools can be controlled from dialog boxes and wizards. The DSPower visual IDE integrates signal flow diagram and source code editor with DSP tools and combines with the RTCG to simplify code generation for DSP devices.

A "TargetWizard" simplifies initial visual IDE and dialog box setup.

More Information
www.signalogic.com/dspdev/vis_ide.htm

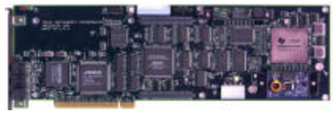
LabView Interface



DSPower-HwLib software now contains a beta version LabView interface which allows the popular National Instruments software to directly access more than 80 types of DSP/data acquisition boards. DSPower-HwLib provides VIs (virtual instruments) for low-level DSP hardware functions such as onboard memory access, COFF file download, and DSP control, and instrument-level functions such as waveform file acquisition with filtering and smart triggering, real-time code monitor, continuous signal output, and more.

More Information
www.signalogic.com/lvpr.htm

C6x Support

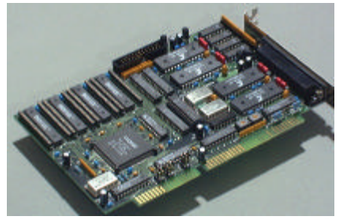


The SigC6201 board is now available and supported by Hypersignal® and DSPower software. The SigC6201 is a low-cost, high-performance C6x DSP/analog I/O platform suited for PC-based development applications. Combined with DSPower software, the SigC6201 enables rapid development and time-to-market for a wide range of applications.

The SigC6201 is fully supported by DSPower-HwLib software, which provides access to C6x resources from MATLAB, Visual Basic, LabView, and Borland or MSVC C/C++ environments.

More Information
www.signalogic.com/sigc6201.htm
www.signalogic.com/dspdev/sigtools.htm

All-Purpose Audio / Acoustic Board



The Sig32C-4 was expressly designed as a powerful, all-purpose acoustic / audio analysis platform. It includes four (4) channels of high-quality 16-bit sigma-delta analog I/O, 80 MHz processor, and up to 640k x 32 of zero wait-state SRAM. It can perform equally as a high SNR multichannel spectrum analyzer, stimulus & response (MLS or other) acoustic measurement system, and real-time convolution / auralization (e.g. stereo 22 kHz, 10,000 pt. filter). Each analog I/O channel has typical SNR 92 dB; all channels are sampled simultaneously; sample rates range from 8 to 48 kHz, (including popular audio rates such as 22.05 and 44.1 kHz). The sigma-delta technology provides sharp roll-off (more than -160 dB/octave) built-in anti-alias and reconstruction filters which track automatically with the software-programmed sampling rate, and nearly ideal linear phase response.

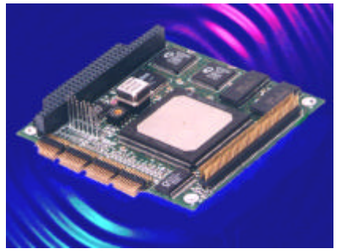
More Information
www.signalogic.com/sig32c4.htm

EVM56xxx Interfaces

Motorola EVM56xxx boards are now fully supported by DSPower and Hypersignal software, including visual development environment, real-time code generation, MATLAB interface, and more. This is achieved by high-speed ISA card or enhanced parallel port (EPP) interfaces created by Signalogic. Examples include debug and probe of generated real-time code, 2 channel 44.1 kHz WAV file playback, real-time spectrum analyzer, and more. Both EVM563xx and EVM5600x boards are supported. Now, with low-cost EVM boards, you can perform DSP56xxx development which was previously possible only with expensive plug-in boards--Signalogic tools make it happen.

More Information
www.signalogic.com/motevm.htm

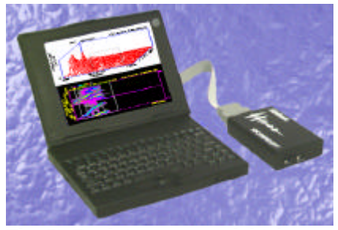
SigC44-PC/104



In a small form-factor (approx. 3.5" x 3.75"), the SigC44-PC/104 board combines the power of a 32-bit floating-point TMS320C44 DSP, up to 512k x 32 SRAM, dual-port RAM host interface, and high-speed, multiple digital I/O options. Primary uses are embedded applications where DSP performance is required in a small space, such as instrumentation grade or acoustic/audio measurement, high-resolution control systems, radar and sonar electronics, medical systems, and vibration analysis.

More Information
www.signalogic.com/44_pc104.htm

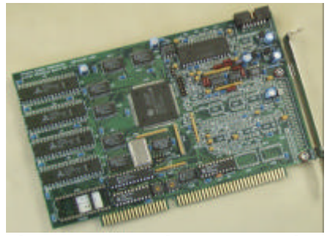
SigBook: Portable DSP/Data Acq.



The SigBook is an external, high-performance DSP-based data acquisition system with low-noise, high dynamic range analog I/O subsystem. The SigBook connects to the host PC via either high-speed plug-in ISA bus interface card or high-speed enhanced parallel port (EPP). The small size, low power consumption, and parallel port interface makes the SigBook ideal for laptop and notebook based data acquisition. Primary applications are acoustic and audio measurement and analysis, speech processing, vibration measurement and analysis, 3-D sound, signal synthesis, and portable of field-based data acquisition and measurement.

More Information
www.signalogic.com/sigbook.htm.

Low-Cost C3x Board



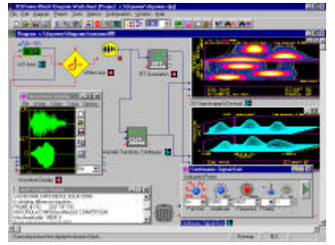
The SigC32-2 is a low-cost DSP/data acquisition board which combines the power of a 32-bit floating-point TMS320C32 DSP with two (2) channels of 16-bit analog I/O and up to 640k x 32 of zero wait-state SRAM. Burr-Brown SAR A/D and D/A converters connected directly to the TMS320C32 serial port are used to help pack the entire functionality into a low-cost, half-size ISA plug-in board. The SigC32-2 board is one of the lowest-cost C3x boards available on the market, with cost starting at USD 545 for base board (40 MHz, 128k x 32 SRAM, no analog I/O).

More Information
www.signalogic.com/sigc32.htm

NT Drivers

Hypersignal software with WinNT 4.0 DSP/data acq. board driver support is now shipping, and DSPower software with this support is expected to be shipping in late October. Both legacy and current DSP/data acquisition boards are supported.

New DSPower Software Releases



DSPower-Block Diagram software v3.0 and DSPower-HwLib software v2.1 were released in August. Both packages include a long list of new features and bug-fixes.

Fully active, time-locked demo versions are available on CD.

For current DSPower customers, a USD 250 upgrade option is available; use your copy of this newsletter to receive a 25% discount.

More Information
www.signalogic.com/dspdev/sigtools.htm
www.signalogic.com/dememail.htm

ADC64 and M44 Board Drivers

The Innovative Integration ADC64 and M44 boards are now fully supported by Hypersignal and DSPower software. The Signalogic drivers are independent of the II drivers, and provide full functionality for the Hypersignal and DSPower software packages, including MATLAB, LabView, Visual Basic, and Borland and MSVC C/C++ support, multiple simultaneous applications and data streams, board resource interrogation and configuration, and real-time profiling and debugging from the DSPower signal flow diagram and real-time code generation environment.

More Information
www.signalogic.com/adc64.htm
www.signalogic.com/m44.htm

SHARC Board Drivers

BittWare Blacktip boards are now fully supported by Hypersignal and DSPower-HwLib software packages, including including MATLAB, LabView, Visual Basic, and Borland and MSVC C/C++ support.

For the Analog Devices EVM2106x board, Signalogic is working on a high-speed interface similar to the approach taken previously for Motorola EVM56xxx boards (see article on page 2). The interface card is expected to be available in 1Q99.

More Information
www.signalogic.com/blacktip.htm
www.signalogic.com/univa61.htm

University Packages

Signalogic's University Packages combine both plug-in DSP hardware and full-featured Signalogic software together in very-low-cost combinations. In addition to simulation, analysis, display, and instrumentation, these packages are suitable for real-time algorithm development. Configurations include Texas Instruments C3x (EVMC30), Motorola DSP5630x and DSP5600x (Sig56 or EVM56xxx), and Analog Devices SHARC (EVM2106x). Packages include *both* ISA plug-in board (with DSP, SRAM, and analog I/O) and Hypersignal-Macro and DSPower-Block Diagram software. DSPower-HwLib software can be substituted. Over 80% discount is provided from list price; several packages are as low as USD 495.

More Information
www.signalogic.com/univpkg.htm.

SigXXX PCI Boards

Signalogic is currently working on PCI versions of the Sig32C-8, SigC31-4, and SigC32-2 boards. Prototypes of the Sig32C-8 PCI board are expected in December.